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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,424	08/03/2001	Alok Kumar Srivastava	50277-1719	7473

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EXAMINER

TRUONG, CAMQUY

ART UNIT PAPER NUMBER

2127

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Am

Office Action Summary	Application No. 09/922,424	Applicant(s) SRIVASTAVA ET AL.	
	Examiner Camquy Truong	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-36 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-14, 17-19 and 22-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iba et al (U.S. Patent 5,835,766) in the view of Davies et al (U.S. Patent 5,682,537).

4. As to claims 1, 6, 19 and 24, Iba teaches the invention substantially as claimed including: a method for selecting a victim to be used during resolution of a deadlock (col. 12, lines 27-34), the method comprising the steps of

Performing a second filtering pass that removes candidates from said set based on priorities associated with said candidates (col. 12, lines 35-40, lines 46-48 and lines 62-64);

If more than a single candidate remains in said set after said second filtering pass, then performing a third filtering pass that removes candidates from

said set based on runtimes associated with possessory entities associated with said candidates (col. 12, lines 49-52, 53-60 and lines 65-67); and

When said set has been filtered to include a single candidate, selecting said candidate as said victim (col. 12, lines 65-67).

5. Iba does not explicitly teach initially establishing a plurality of resources involved in said deadlock as a set of candidates to be said victim and performing a first filtering pass that removes candidates from said set based on CAN-BE-VICTIM flags associated with said candidates. However, Davies teaches establishing a plurality of resources involved in said deadlock as a set of candidates to be said victim (col. 10, lines 36-38 and col. 15, lines 56-58) and performing a first filtering pass that removes candidates from said set based on CAN-BE-VICTIM flags associated with said candidates (col. 12, lines 31-51).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Iba and Davies because Davies' establishing a plurality of resources involved in said deadlock as a set of candidates to be said victim and performing a first filtering pass that removes candidates from said set based on CAN-BE-VICTIM flags associated with said candidates would reduce processing overhead in managing locks in a parallel data processing system.

7. As to claims 4, 14, 17, 22, 32 and 35, Iba teaches a portion of the priority of a given resource is established statically (col. 12, lines 37-39).
8. As to claims 5, 18, 23 and 36, Iba teaches portion is established based on the type of the given resource (col. 12, lines 39-40).
9. As to claims 7 and 25, Davies teaches filtering further includes removing from said plurality of candidates any candidates that have a CAN-BE-VICTIM flag that indicates the candidate cannot be a victim (col. 12, lines 31-51).
10. As to claims 8 and 26, Iba teaches filtering further includes removing from said plurality of candidates the candidates whose resource priority is higher than the resource priority of at least one of the other candidates (col. 12, lines 62-64).
11. As to claims 9 and 27, Iba teaches filtering further includes removing from said plurality of candidates all the candidates that are associated with possessory entities have been running for a duration of time that is relatively longer than the duration of time that possessory entities associated with the other candidates have been running (col. 12, lines 55-60).
12. As to claims 10 and 28,

Davies teaches removing some candidates from the plurality of candidates in a first pass based on a first factor wherein the candidates left is a first subset of candidates (col. 12, lines 31-51); and

Iba teaches removing some candidates from the first subset of candidates in a second pass based on a second factor that is different from the first factor. (col. 12, lines 35-40, lines 46-48 and lines 62-64).

13. As to claims 11-12 and 29-30, Iba teaches the candidates left after said second pass is a second subset of candidates and wherein the second pass based on the second factor is only performed if after performing the first pass more than one candidate is in the first subset of candidates (col. 12, lines 53-55 and lines 63-65).

14. As to claims 13 and 31, they are rejected for the same reason as claims 1, 6, 19 and 34.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 2-3, 15-16, 20-21 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iba et al (U.S. Patent 5,835,766) in the view of Davies et al (U.S. Patent 5,682,537) and further in view of Porter et al (U. S. Patent 6,332,023 B1).

17. As to claims 2-3, 15-16, 20-21 and 33-34, Iba and Davies do not teach a portion of the priority of a given candidate is established dynamically and portion is established based on which resources other than said candidate are held by a possessory entity associated with the given candidate. However, Porter teaches a portion of the priority of a given candidate is established dynamically and portion is established based on which resources other than said candidate are held by a possessory entity associated with the given candidate (col. 3, lines 5-19).

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Iba, Davies and Porter because Porter' portion of the priority of a given candidate is established dynamically and portion is established based on which resources other than said candidate are held by a possessory entity associated with the given candidate would allow network resources to be dynamically reserved.

Conclusion

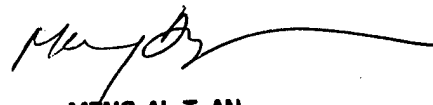
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

January 26, 2005



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